

mm Docket No. 01-334

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February 4, 2002

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Attention: Video Services Division

RECEIVED

FEB 04 2002

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: The Matter of Amendment of Section 73.622(b), Table of Allotments, Digital Television
Broadcast Stations. (Green Bay, Wisconsin)

Dear Mr. Caton:

Enclosed on behalf of the Wisconsin Educational Communications Board, are an original and four copies of ECB's technical comments in connection with the above referenced proceeding.

Sincerely,

Ernest T. Sanchez
Counsel for the Educational Communications Board

cc: Raymond A. White, Esq.
Assistant General Counsel
CBS Broadcasting, Inc.

Certificate of Service

I hereby certify that, on this 4th day of February, 2002, a copy of the attached comments was served by facsimile, upon the following person:

Raymond A. White, Esq.
Assistant General Counsel
CBS Broadcasting, Inc.
600 New Hampshire N.W.
Washington, DC 20037

Ernest T. Sanchez
Ernest T. Sanchez



CONSULTANTS IN COMMUNICATIONS TECHNOLOGY

**Engineering Statement on behalf of
Wisconsin Educational Communications Board
Regarding a Proposal by the Licensee of
WFRV-TV, Green Bay, Wisconsin
To Change Digital TV Assignment to Channel 39**

February 2002

This Engineering Statement has been prepared by B. Benjamin Evans, P.E., of Evans Associates, Consulting Telecommunications Engineers in Thiensville, Wisconsin, on behalf of the State of Wisconsin Educational Communications Board ("WECB"), licensee of Educational Television Station WPNE(TV) assigned to Green Bay, Wisconsin.

This engineering statement supports WECB's opposition to the petition for rulemaking (MM Docket #01-334, RM-10343), filed by CBS Broadcasting Inc., licensee of TV Station WFRV-TV in Green Bay, Wisconsin.

I. Background

WFRV's NTSC assignment is Channel 5, and the presently assigned digital channel is 56. WPNE's analog channel is 38, and Channel 42 is the digital assignment.

WFRV has requested a modification to the FCC's table of allotments to assign digital Channel 39 in place of the out-of-core Channel 56 assignment. WECB is opposed to this change because operation of a high-density digital signal adjacent to WECB's analog assignment would cause extensive interference to WECB's educational program viewers in northeastern Wisconsin. In addition, the WFRV proposal would cause a prohibited amount of interference to other facilities in Illinois and Michigan.



WPNE operates with 1070 KW ERP and an antenna height of 375 meters HAAT, 599 meters AMSL (325 m AGL). An application for license is pending for these facilities. WFRV-TV proposes to operate from a site that is 5.34 miles from WPNE using 1000 KW and an antenna height of 364 meters HAAT.

It is the position of this engineer and WECB that the proposed assignment is not technically viable, and therefore that the grant of petitioner's request would not be in the public interest.

II. Details of WECB's Opposition

WECB is opposed to the Channel 39 digital assignment for the following reasons:

- 1) With a n+1 relationship to WPNE, actual interference will be caused to receivers in the Green Bay service area over a wide band of D:U ratios, nominally 2:1 to 1:1+ X due to deficiencies in the NTSC receivers.
- 2) The five mile separation between WPNE and WFRV will create zones of extremely high interference near the WFRV antenna site.
- 3) The fact that two different entities would be the licensees of adjacent channels would make co-ordination of facility upgrades and/or site co-locations difficult or impossible.
- 4) Restrictions would be placed on future re-location of WPNE Channel 38 that may affect its ability to properly serve its viewers as populations expand. In addition, WECB's options may be limited with respect to its future ability to utilize Channel 38 for its digital transmission.
- 5) The proposed Channel 39 assignment apparently short-spaces a Channel 39 application by McPike Communication (BPCT-19960220KF) for a new facility in Marshfield, Wisconsin, according to the FCC's database. The short-spacing is 4.8 kilometers.



- 6) WZZM-DT in Grand Rapids, Michigan (BPCDT-19991020ABR) would receive substantial interference from the WFRV proposal. This engineer calculates that 2.5% of WZZM's population would receive interference as a direct result of petitioner's grant, compared to 1.7% as claimed by the petitioner. This level of interference is well above the de minimus threshold.
- 7) Similarly, WQRF-TV in Rockford, Illinois would receive interference to 4.1% of its population. This is considerably more than the 1.7% claimed by the petitioner.
- 8) WPNE would receive interference to 1.7% of its population as opposed to 0.6% as claimed by the petitioner.

WPNE's service area covers 832,407 persons (2000 U.S. Census) and 17,996 square kilometers. It is estimated that at least 20,000 persons will receive actual interference as a result of the proposal. Many of the viewers of Wisconsin Public Television programming utilize older TV sets that are highly susceptible to adjacent channel interference. Digital broadcasting is extremely dense, and can be expected to overload a high percentage of these receivers, due to the absence of a "guard band" on the low frequency side of Channel 39. Interference is expected to be especially severe to the audio sub-carrier.

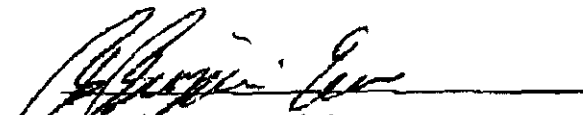
With respect to the FCC's assignment criteria, as tabulated in the Sixth Report and Order, the assignment of n+1 digital channels was made only as a last resort, and almost exclusively to licensees of both frequencies. If the petitioner's application were granted, an extreme operational burden would be placed upon WPNE to ensure that its visual carrier frequency is maintained at precisely 5.082138 MHz below the digital pilot carrier, +/- 3 Hz, as per §73.622(g)(1) of the FCC's digital allocation rules. No agreement is in place between WECB and petitioner to maintain this tolerance.



III. Conclusions and Recommendations

Based upon the above analysis, it is clear that extensive interference and operational difficulties would occur as a result of a grant of the petitioner's request. It is not known why the petitioner's calculations of interference areas do not agree with those as calculated by this office. Evans Associates uses state-of-the-art software and database to perform our analyses.

Such interference should be weighed against the fact that there is a very simple remedy for WFRV to activate their DTV facility. They could operate on channel 56 until either a more suitable channel opens up, or until the NTSC operation can be replaced with the digital operation on Channel 5.


B. Benjamin Evans, P.E.

February 4, 2002

AFFIDAVIT

COUNTY OF OZAUKEE

SS:

STATE OF WISCONSIN }

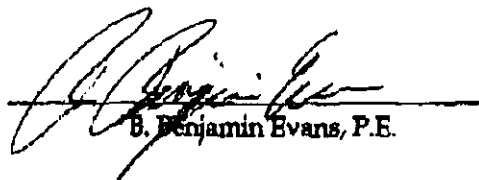
B. BENJAMIN EVANS, being duly sworn upon oath deposes and says:

That his qualifications are a matter of record with the Federal Communications Commission;

That he is a Consulting Telecommunications Engineer, a Registered Professional Engineer in the State of Wisconsin, and a partner in the firm of Evans Associates;

That this firm been retained by Wisconsin Educational Communications Board to prepare this engineering exhibit;

That he has either prepared or directly supervised the preparation of all technical information contained in this engineering exhibit, and that the facts stated in this exhibit are true to the best of his knowledge, except statements that are herein stated to be based on information or belief, and as to such statements he believes them to be true.


B. Benjamin Evans, P.E.Subscribed and sworn to before me this 4th day of February, 2002.
Notary Public

My Commission expires

February 23, 2003

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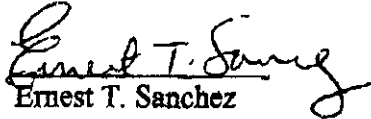
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